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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,781	05/27/2004	Jeffery R. Ihde	ITW7510.082	3780

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ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ITW)
14135 NORTH CEDARBURG ROAD
MEQUON, WI 53097

EXAMINER

SHAW, CLIFFORD C

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,781

Applicant(s)

IHDE ET AL.

Examiner

Clifford C. Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-21 is/are allowed.
- 6) ☒ Claim(s) 1 and 6 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Detailed Action

1.) The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2.) Claims 1 and 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 6 of copending Application No. 10/605,022 in view of Lobosco (2,636,102). Claims 1 and 6 of the instant application differ from claims 1 and 6 in copending application no. 10/605,022 in calling for a non-incremental adjustment of wire feed speed. This difference does not patentably distinguish over the copending claims. It is considered obvious that the broad limitation in the copending claim calling for adjusting wire feed speed be implemented in a non-incremental manner in view of the teachings of Lobosco (2,636,102) that wire feed speed control can be so implemented (see the analog based control of motor 18 in response to sensed arc voltage in Lobosco (2,636,102)).

This is a provisional obviousness-type double patenting rejection.

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3.) The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4.) Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernicola (3,968,340) taken with Kimbrough et al. (4,301,355). The patent to Fernicola (3,968,340) discloses a welding arrangement with features claimed, including: a MIG welder associated with elements 10 and 14; a constant current power supply at 20; a controller R3 to set an initial wire feed speed based on a user input; a controller 62 to set a value representative of a target arc voltage to control feed speed. The claims differ from Fernicola (3,968,340) in specifying that the wire feed reduces the difference between a target arc voltage and the actual arc voltage. This does not patentably distinguish over the prior art. In his column 1, lines 8-20 and column 3, lines 30-35, Fernicola (3,968,340) refers to a conventional control approach using arc voltage as the feedback control variable, but does not discuss in detail how the sensed arc voltage, the set point means 62, and the arc electronic governor 16 interact. The patent to Kimbrough et al. (4,301,355) discloses a conventional wire feed speed control loop wherein arc voltage is compared to a reference voltage and used to control the wire feed motor speed to reduce the difference from the comparison (see elements 24, 58, 33, 52 in figure 8 of Kimbrough et al. (4,301,355)). It is considered obvious that the arc voltage control in Fernicola (3,968,340) is of this conventional negative feed-back type approach wherein a sensed arc voltage is compared to a reference value and used to control wire feed speed to reduce the difference as exemplified in the patent to Kimbrough et al. (4,301,355), this in view of the discussion in

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Fernicola (3,968,340) of conventional control systems using arc voltage as the feedback control variable for wire feed speed.

5.) Claims 2-5 are objected to for depending from rejected claims, but would be given favorable consideration if recast in independent form to include all of the limitations of the parent claims. None of the prior art of record teaches or suggests the limitations directed to a wire feed speed gain setting being determined from the initial wire feed speed as set forth in the claims.

6.) Claims 7-21 are allowable over the prior art of record. None of the prior art of record teaches or suggests: a welding system as set forth in claim 7 wherein the wire feed speed is adjusted at a gain rate that varies with the initial wire feed speed; the controller of claim 13 that is programmed to set a rate of adjustment from the initial wire feed speed; or the method of claim 19 wherein the speed is adjusted at a rate that varies with initial wire feed speed. The other claims are allowable at least because they depend from independent claims 7, 13, and 19.

7.) Applicant's arguments filed on 6/27/2005 have been fully considered but they are not persuasive. Applicant argues that there is nothing in the disclosure of Fernicola to suggest that the voltage regulation is achieved in the non-incremental manner that is claimed. This argument is not persuasive of patentability. The use of an analog control loop as per the teachings of the Kimbrough et al. patent would result in non-incremental control. Applicant argues that the Kimbrough et al. patent is not pertinent since it teaches a fixed wire feed speed when in constant

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voltage control mode. This argument is not persuasive. The Kimbrough et al. patent is relied on only to show the details of a voltage control loop that controls wire feed speed in the prior art.

The Fernicola patent broadly teaches that wire feed speed can be controlled in response to sensed arc voltage. The Kimbrough et al. patent discloses a particular prior art instantiation of this type of wire feed speed control loop.

8.) THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
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September 16, 2005